Market Overview

With a gross domestic product (GDP) of approximately US$600 billion, Brazil has the 12th largest economy in the world and represents about half of the South American territory and economy. With its estimated 182 million inhabitants, Brazil has the largest population in Latin America and ranks fifth in the world. The majority of people live in the central and southeast regions, which include the industrial cities of São Paulo, Rio de Janeiro, and Belo Horizonte. Urban growth has been rapid; in 2005, about 81% of the total population was living in urban areas.

The urban mass transit system is still small when compared to cities in Europe, Asia, and the United States. Public transportation is provided mostly by buses. The rail system transports about 1.3 billion passengers per year, covering only 3 percent of the demand, and it is available only in larger metropolitan regions, such as São Paulo, Rio de Janeiro, Belo Horizonte, Porto Alegre, Recife, Salvador, João Pessoa, Maceió, Natal, and Fortaleza.

Metropolitan Region	State	Operator	# of Lines	Extension (miles)	# of Stations
São Paulo	Sao Paulo	METRO – SP	4	36	52
São Paulo	Sào Paulo	CPTM	6	158	83
Rio de Janeiro	Rio de Janeiro	OPPORTRANS	2	22	32
Rio de Janeiro	Rio de Janeiro	SUPERVIA	5	142	82
Belo Horizonte	Minas Gerais	METRO - BH	1	18	19
Porto Alegre	Rio Grande do Sul	TRENSURB	1	21	17
Recife	Pernambuco	METROREC	2	32	25
Salvador	Bahia	CBTU - Salvador	1	8	10
João Pessoa	Paraiba	CBTU – João Pessoa	1	19	9
Maceió	Alagoas	CBTU - Maceió	1	20	15
Natal	Rio Grande do Norte	CBTU - Natal	2	35	20
Fortaleza	Ceará	METROFOR	2	22	12

(Source: National Association of Public Transportation – ANTP)

The need to expand the commuter train and subway systems in large urban centers is a subject of discussion among public administrators. Serious traffic congestions, pollution caused by poorly maintained city buses, and the enormous amount of time lost in transporting people to and from work, all require immediate attention and raises the question of how to improve and expand the urban mass transportation network. Until recently, public administrators used traditional financial methods such as the BNDES (Brazilian Economic and Social Development Bank) and the IDB (International Development Bank). However, alternative options such as the Public-Private-Partnership (PPP) are now being considered, which should bring new resources for the expansion of existing networks and construction of new lines. In December 2005, São Paulo Governor Geraldo Alckmin announced Brazil's first Public-Private Partnership (PPP) project for the construction and operation of the Yellow Line, also known as Metro Line 4. It is expected that other states will also follow the same model in the near future.

Below is a summary of the most important on-going mass transportation projects in Brazil. All those projects offer excellent opportunities for US suppliers of traffic signaling systems, electrical equipment, telecommunication systems, automatic ticketing systems, and train control centers.

São Paulo

The Sao Paulo metropolitan area comprises 39 municipalities and has a population of approximately 18 million - one of the largest in the world. The city represents 17% of the Brazilian GDP, and is the most important financial and industrial center in South America. The urban rail system that serves the region is composed of 36 miles of a subway network (Metro) and 158 miles of commuter train network (CPTM) that together transports 4.1 million passengers per day.

METRO – SP

The Metro system in São Paulo is one of the most efficient in the world and highly regarded by its users for its safety and reliability. It has been slowly but constantly expanding its network over the years.

LINE 4 – Yellow Line

On December 20, 2005, São Paulo Governor Geraldo Alckmin announced Brazil's first Public-Private Partnership (PPP) project for the construction and operation of the Yellow Line, also known as Metro Line 4. The total cost of the project is estimated at US$1.26 billion, of which the state government, the World Bank, and JBIC (Japan Bank for International Cooperation) will fund US$922 million. A private partner should fund US$340 million. The Yellow Line will connect the Vila Sonia district in the city's south to the existing Metro and urban train networks downtown. The line will be 8 miles underground and include 11 stations.

The construction will be divided into two phases. Phase one, estimated at US$918 million, will include the construction of 8 miles of tunnels and six stations. Completion of phase one is expected in December 2008, when fourteen 6-car trains will be transporting 704,000 passengers per day. Construction of three intermediary stations will begin during this first phase.

Phase two will involve the completion of intermediary stations, construction of two new stations, and acquisition of 15 trains. The total cost of phase two is estimated at US$344 million, and should be completed by 2012.

Under the public-private partnership, a private investor is expected to invest US$340 million to acquire trains, operation systems, signaling and control systems, and mobile telecommunication equipment. The private investor will also be responsible for the commercial operation of Line 4 for 30 years under concession. The state government, the World Bank and JBIC will invest another US$922 million in infrastructure works, civil construction, electrical supply, fixed telecommunication equipment, ventilation systems and escalators. Infrastructure works are already under way with the state government funding.

The tender for public-private partnership of Line 4 is open for Brazilian and foreign companies with experience in management of large-scale projects, independently, or in consortium. Proposals should be submitted by February 2006. The bidder who proposes to invest US$340 million and requires the least amount of government counterpart investment will be awarded the contract. According to Jurandir Fernandes, São Paulo State Secretary for Metropolitan Transportation, companies from Spain, Chile and Argentina have already expressed interest in the PPP, and other foreign companies established in Brazil such as Alstom, Siemens and Bombardier may also be interested.

LINE 2 – Green Line

Line 2 currently operates along 4.4 miles with eight stations and transports 174,000 passengers/day. Construction works are currently under way to add 3.2 miles of tracks and four stations by 2010. The expansion project, estimated at US$680 million, includes civil works, signaling and communication equipment, control systems, and rolling stock. The Brazilian Economic and Social Development Bank (BNDES) and the state government of São Paulo are funding the project.

CPTM PROJECTS

Companhia Paulista de Trens Metropolitanos (CPTM) is a state-owned company responsible for the operation of a 158-mile commuter train network in São Paulo's metropolitan area. The network consists of six lines and 87 stations that transport approximately 1.5 million passengers per day. Passenger demand has almost doubled in the last eight years and is expected to reach 3 million passengers by 2010. In preparation to meet the increasing demand, CPTM is implementing several projects to upgrade the system and improve its safety, efficiency, and comfort levels.

Lines A, B and D
These lines will be entirely remodeled along 87 miles.

Line C
The existing line has 15 miles and runs along poor and densely populated areas of the city. Upgrading works on the existing line are currently under way. In November 2005, the state government announced the extension of the line by 5.3 miles, the construction of two more stations, and the modernization of rolling stock. The project is estimated at US$100 million and should be completed by 2007.

Line E
This line has 32 miles of extension and CPTM is investing approximately US$126 million to upgrade the existing tracks and stations, build three new stations and modernize the existing ones, and buy new rolling stock. It is expected to be complete by 2008 when the trains should be operating at 3-minute headways, transporting 450,000 passengers per day.

Line F
CPTM is investing approximately US$100 million to improve safety, reliability and comfort levels. The project includes the construction of three new stations and renovation of existing stations. It also includes the remodeling of 59 trains, upgrading of tracks, electrification and telecommunications systems, and construction of a maintenance yard. The project is expected to be complete by 2008.

Rio de Janeiro

The Rio de Janeiro metropolitan area has a population of approximately 10 million, distributed amongst 19 municipalities. Opportrans and Supervias, both private companies, are responsible for the operation of urban rail transportation network in Rio de Janeiro, but the state government is responsible for planning and implementing expansion projects.

The Metro System, composed by Lines 1 and 2, is operated by Opportrans under a 20-year concession that began in 1997. It provides transportation to approximately 120 million passengers per year. Supervias is responsible for the operation of a 142-mile suburban train network under a 25-year concession contract that began in 1998, renewable for another 25 years.

Line 1
The state government plans to extend Line 1 by 1.3 miles, using funds from the Brazilian Economic and Social Development Bank (BNDES). The project, estimated at US$235 million, will include the acquisition of 60 new rail cars, completion of the Siqueira Campos station, and various systems upgrades.

Line 2
The state government plans to invest US$430 million in a project that involves the expansion of Line 2 by 1.8 miles, completion of Carioca Station, construction of a new station, and acquisition of 160 rail cars. This should increase the current transportation capacity by 300,000 passengers per day.

Suburban Rail
For decades, the suburban rail system in Rio de Janeiro was the metropolitan area's main means of transport. In 1949, the system provided transportation for more than 600,000 passengers per day, but the system suffered from a lack of government interest in maintaining and expanding the network, as reflected in the table below:

YEAR	# OF PAX/DAY
1937	100,000
1949	615,000
1962	707,000
1975	350,000
1984	916,000
1998	200,000
2005	300,000

In 1998, Rio's suburban rail system was transferred to SuperVia, a private company that obtained the right to operate, maintain and expand the existing system for 25 years, renewable for an additional 25 years. It currently transports 300,000 passengers per day and SuperVia is making investments of approximately US$300 million to expand the transportation capacity to 1.2 million passengers. The project includes the recovery and modernization of stations, signaling and telecommunication systems, aerial network, substations, track upgrades and acquisition of new rolling stock.

Porto Alegre

In Porto Alegre, Trensurb is responsible for the Metro operation. The existing line has 21 miles of extension, 17 stations and 25 trains. The government will be investing approximately US$ 145 million to expand the existing line by 6 miles. Plans for the future include the construction of Line 2 that should connect to Line 1 and provide transportation for 450 thousand passengers per day.

Best Sales Prospects

Best prospects for U.S. companies for the expansion and modernization of mass transit projects in Brazil are:

- Signaling systems
- Electrical equipment
- Telecommunications equipment
- Safety and traffic control equipment
- Automatic ticketing systems
- Train control systems

Market Access

All imports in Brazil are subject to a number of taxes and fees, which are usually paid during the customs clearance process. There are four main taxes that account for the bulk of importing costs:

Import duty: a federal tax levied on foreign products that enter Brazilian territory, which is calculated on top of the CIF value. The average import duty in Brazil is 12 percent, but in cases when no similar equipment is produced in the country, this tariff is reduced to 4 percent.

Industrial Products Tax (IPI): a federal tax levied on both domestic and imported manufactured products. It is assessed at the point of sale by the manufacturer in the case of domestically produced products, and at the point of customs clearance in the case of imports. The IPI is calculated on top of the **CIF value + import duty**. The IPI for railroad equipment, traffic control equipment and ticketing systems varies from zero to 18 percent.

Merchandise Circulation Tax (ICMS): is a state government value-added tax, applicable to both imported and domestic products. The ICMS tax on imports is assessed over the CIF value, plus import duty, plus IPI as its calculation base. The ICMS rate varies among states. In the state of São Paulo it is 18 percent, but in most states it is 12 percent.

PIS and Cofins: these taxes are applicable to both domestic and imported products and services. They are calculated in an extremely complex. In general, the total effect of these fees sums up to approximately 12.63 percent of the CIF.

Products manufactured in Brazil are also subject to the above taxes, but American companies should keep in mind that, **as the taxes are calculated in a compounding manner over the CIF value plus the import duty, the overall IPI, ICMS, PIS and Cofins of an imported product will be significantly higher than that of a locally manufactured product**. Also, one should not forget that when distributors and trading companies sell the product, they are compensated for those taxes collected at the time of import.

In addition to the above, there are other costs and fees such as the warehousing cost, terminal handling fee, customs brokers' union fee, customs brokerage fee, transportation and bank costs, that all together usually come to approximately 70 percent of the FOB price.

Market Entry

In order to be successful in Brazil, U.S. manufacturers should have a well-informed local representative or distributor who can offer after sales services, replacement parts, repair, and maintenance services. Due to the size of the country most distributors cover only specific regions. Local partners should be familiar with import legislation and overall market trends to guarantee continuous sales.

When signing an agent or distribution contract with a Brazilian firm, it is important to use the services of law firms that are familiar with Brazilian legislation. Commercial distribution contracts are regulated by general Brazilian commercial law and not by specific legislation. However, there is specific legislation regulating the relationship between the foreign company and the Brazilian agent or sales representative. Contract clauses are freely negotiated between the U.S. company and the local agent, but the monetary compensation payable to the agent in case the contract is broken is established by law and is usually very favorable to the agent.

The U.S. Commercial Service offers a variety of services to assist U.S. exporters find a business partner. For more information on those services and reports on this sector please look at www.export.gov.

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For more information about export opportunities in this sector contact US Commercial Service Trade Specialist Marina Konno at: Marina.Konno@mail.doc.gov. For a good overview of exporting to Brazil, please look at our US Country Commercial Guide to Brazil at www.focusbrazil.org.br/ccg.